



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/937,766 | 10/01/2001 | Wolfgang Zirwas | 1454.1082/RAG | 5129 |
| 21171 | 7590 | 11/07/2005 | EXAMINER | |
| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | TORRES, JUAN A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2631 | |

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/937,766

Applicant(s)

ZIRWAS, WOLFGANG

Examiner

Juan A. Torres

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-27, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-26, 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The modifications to the drawings were received on 06/13/2005. These modifications are not accepted by the Examiner, because FIG. 2 includes a new FEC block that is new matter that was not show before. For this reason the objections of the previous Office action with respect to FIG. 3 and FIG 4 are maintained. Specifically, the drawings are objected to because:

a) In FIG 3 the delay blocks T2 and T3 are not show as indicated in page 11 paragraph [0029] of the disclosure.

b) In FIG 4 the label "ICI-Ströung" is not in English language.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The modifications to the specification were received on 10/21/2005. These modifications are not accepted by the Examiner, because paragraphs [0039] and [0043] include new matter that was not presented before. Specifically the disclosure is objected to because of the following informalities:

- a) In page 6 the recitation MMIC is suggested to be changed to Monolithic Microwave Integrated Circuit (MMIC).
- b) In page 10 line 5 of paragraph [0024] the recitation "AE" is erroneous, it is suggested to be changed to "KE" as shown in FIG. 2.
- c) In page 10 line 6 of paragraph [0024] the recitation "AD" is erroneous, it is suggested to be changed to "ED" as shown in FIG. 2.
- d) In page 11 paragraph [0026] the recitation "AW" is erroneous, it is suggested to be changed to "AP" as shown in FIG. 2.
- e) In page 14 paragraph [0034] equation (5) the recitation " M_{\min} " is erroneous, it is suggested to be changed to " sM_{\min} " as shown in FIG. 4.
- e) In page 17 line 5 of paragraph [0042] the recitation " M_{\min} " is erroneous, it is suggested to be changed to " sM_{\min} " as shown in FIG. 4.

Appropriate correction is required.

Claim Objections

In view of the amendment filed on 10/21/2005, the Examiner withdraws claim objections of claim 21 of the previous Office action.

Response to Arguments

Regarding claim 27

Applicant's arguments filed 10/21/2005 have been fully considered but they are not persuasive.

The Applicant contends, “

Claim 27 was rejected for failure of the Examiner to find a description in the specification of "the case of the transmission medium is a cable-based transmission channel and a wire-based transmission channel." The Examiner's attention is directed to paragraph [0002] which described "wire-based connecting cables" (line 9). Based on this description in the application as filed, paragraph (0043) has been added to describe that the invention can be applied to this known transmission medium. It is submitted that no "new matter" is contained in paragraph [0043] since it was clear from paragraph [0002] and original claim 27 that application of the invention to cable- and wire-based transmission mediums was contemplated by the inventors. Therefore, withdrawal of the rejection of claim 27 is respectfully requested.”

The Examiner strongly disagrees and asserts, that, as indicated in the previous Office action “the specification doesn’t describe the case of the transmission medium is a cable-based transmission channel and a wire-based transmission channel”.

Paragraph [0001] and [0002] have the recitation:

Art Unit: 2631

"[0001] The present invention is directed to wireless communications networks, based on radio channels, in particular in point-to-multipoint radio feeder networks.

[0002] In wireless communications networks, based on radio channels, in particular in point-to-multipoint radio feeder networks - also referred to as "Radio In The Local Loop" or "RLL" - a number of network termination units are each connected via one or more radio channels to a base station - also referred to as "Radio Base Station" or "RBS". For example, a wireless feeder network for wireless voice and data communication is described on pages 36, 37 of telecom report No. 18 (1995), issue 1 "Drahtlos zum Freizeichen" which means "Wireless for Calling". The described communications system is an RLL subscriber access in conjunction with a modern broadband infrastructure - for example "Fiber to the curb" - which can be implemented in a short time and without major effort, instead of laying wire-based connecting cables. The network termination units RNT associated with the individual subscribers are connected via the "radio channel" transmission medium and the base station RBS to a higher-level communications network, for example to the ISDN-oriented landline network."

It is clearly indicated that this application is intended only for wireless communication network. For these reasons and the reason stated in the previous Office action, the rejection of claim 27 is maintained.

Claim Rejections - 35 USC § 112

In view of the amendment filed on 10/21/2005, the Examiner withdraws the 35 USC § 112 rejection to claim 30 of the previous Office action.

Art Unit: 2631

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 27 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification doesn't describe the case of the transmission medium is a cable-based transmission channel and a wire-based transmission channel.

Allowable Subject Matter

Claims 16-26 and 29-30 are allowable over prior art (if the above objections are overcome).

The following is an examiner's statement of reasons for allowance: claims 16-26 and 29-30 are allowed because the references cited fail to teach, as applicant has a method for receiving a multicarrier signal transmitted via a transmission medium subjecting each frequency-discrete subcarrier of the multicarrier signal to subcarrier-specific disturbances caused by adjacent subcarriers in the frequency domain, the multicarrier signal having a number of frequency-discrete subcarriers and carrying inserted information converted by a multicarrier method to frequency-discrete modulation-specific modulation symbols, the method comprising: superimposing on each frequency-discrete subcarrier of the multicarrier signal predetermined test

disturbances to produce a deliberately disturbed multicarrier signal; comparing disturbed modulation symbols in the deliberately disturbed multicarrier signal with undisturbed, modulation-specific modulation symbols, to derive subcarrier-specific error information; deriving correction information representing the subcarrier-specific disturbances as a function of the predetermined test disturbances and the subcarrier-specific error information; and correcting the frequency-discrete subcarriers of the multicarrier signal based on the correction information, as the applicant has claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

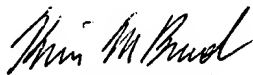
Art Unit: 2631

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres
10-28-2005


KEVIN BURD
PRIMARY EXAMINER